July 18, 1933. L. K. FIELD 1,919,100

FOLDING BOX

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Fig. 1.

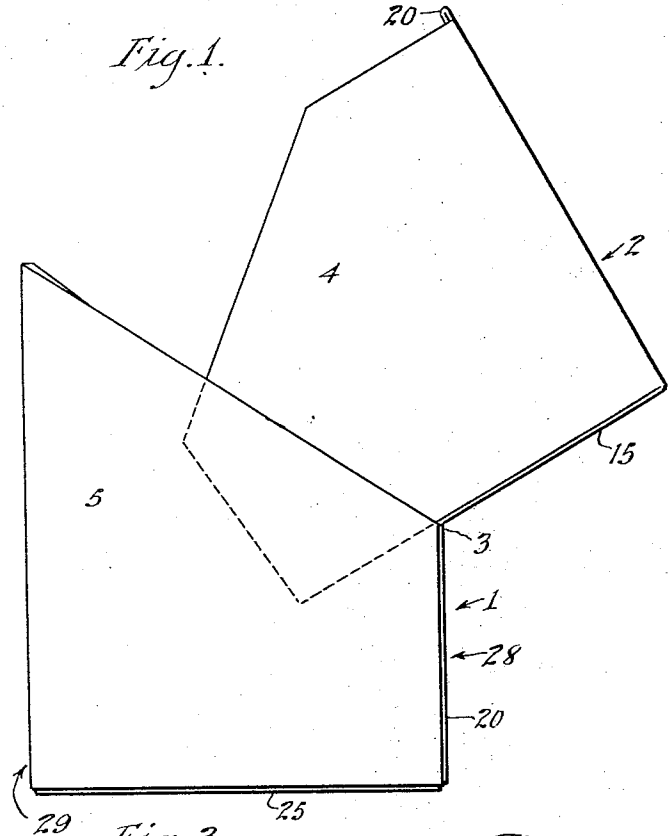


Fig. 2.

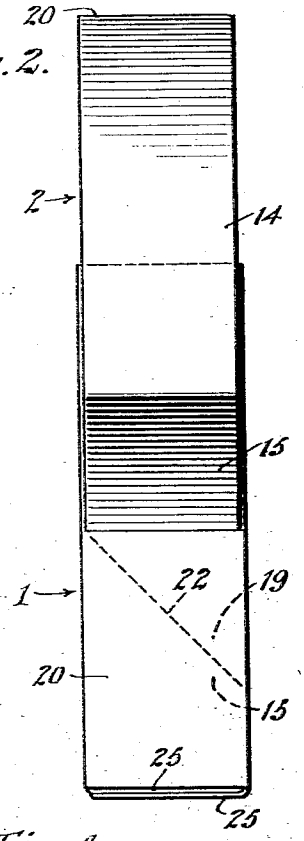
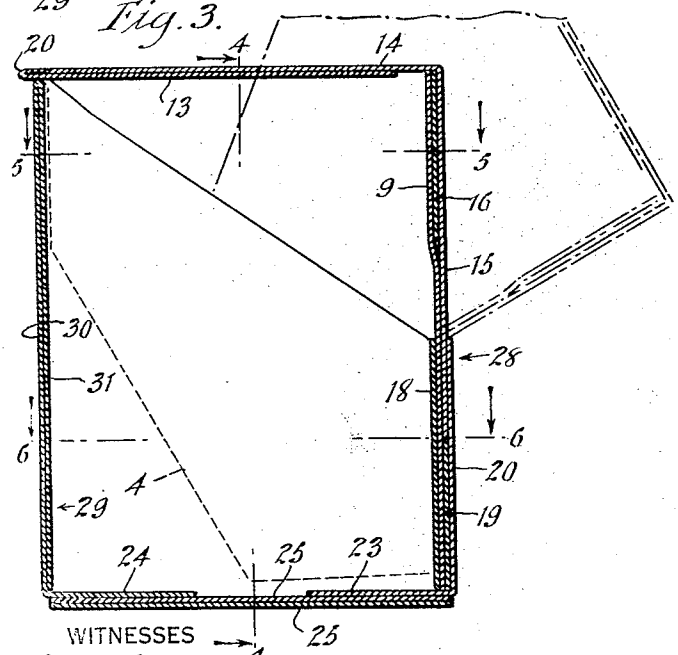


Fig. 3.

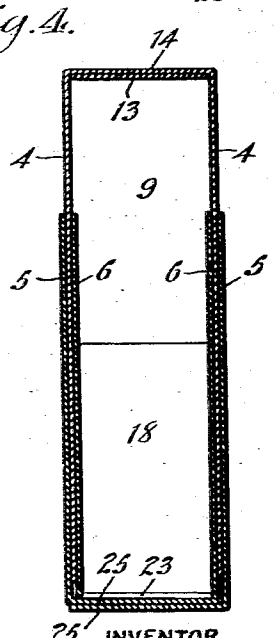


WITNESSES

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Fig. 4.



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Fig. 5.

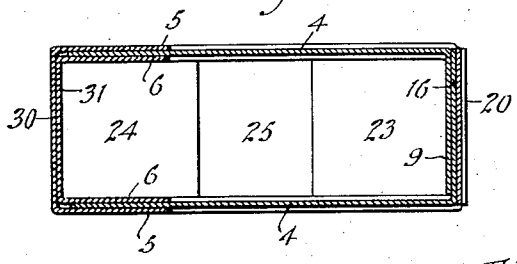


Fig. 6.

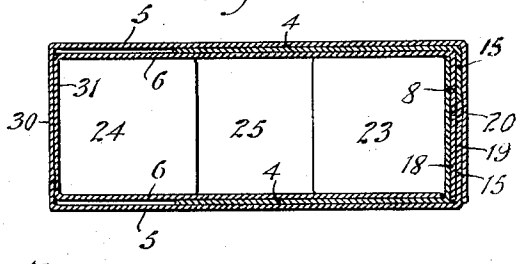
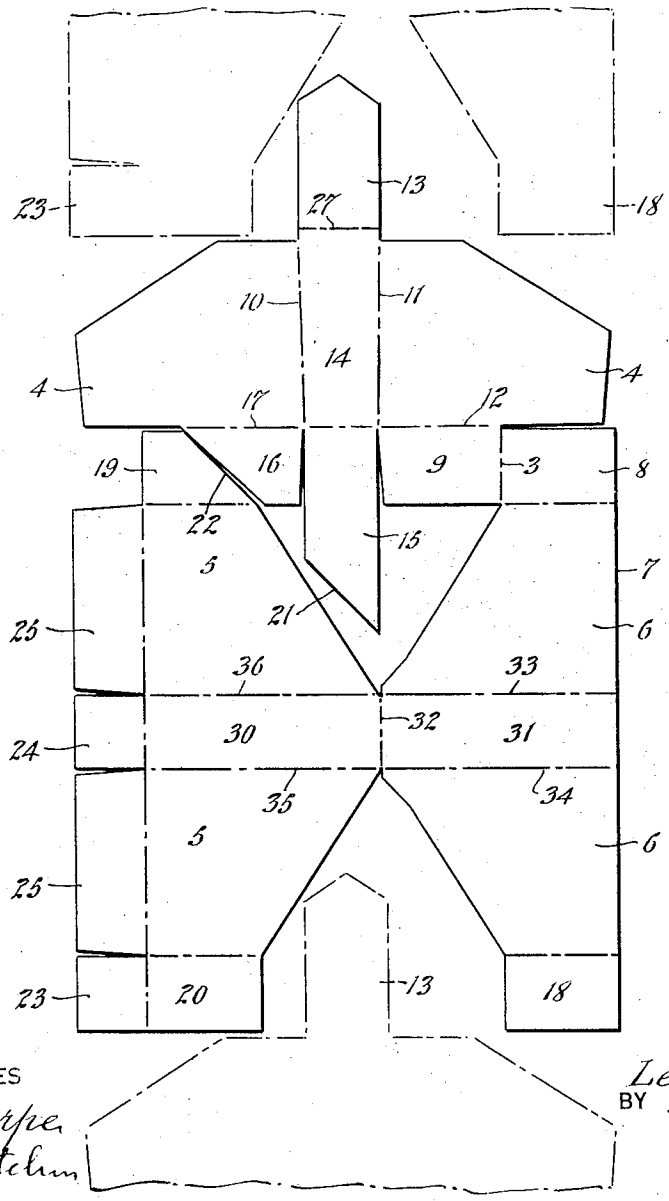


Fig. 7.



WITNESSES

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1,919,100

UNITED STATES PATENT OFFICE

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FOLDING BOX

Application filed July 22, 1932. Serial No. 624,102.

This invention relates to a folding box and has for an object to make an improved folding box having a swingable cover, the construction being such that the entire box may be stamped from a single blank.

Another object of the invention is to provide an improved construction formed with a body and a cover with the parts so arranged that when the body and the cover have been folded the sides of the cover will slidingly fit between the side members of the body, while the back of the cover is hingedly connected to the back of the body.

An additional object, more specifically, is to provide a folding box formed from a single blank with the parts arranged so that when folded a body and a swingable cover are presented with certain of the walls reinforced by a plurality of layers in order to present a comparatively strong construction.

A further object is to provide an improved construction of a folding box which is an improvement over my prior application, Serial Number 593,364.

In the accompanying drawings,—

Figure 1 is a side view of a box disclosing an embodiment of the invention, the cover being shown tilted to an open position.

Figure 2 is a rear view of the box shown in Figure 1.

Figure 3 is a longitudinal vertical sectional view through the box shown in Figure 1, the lid being illustrated closed in full lines and open in dotted lines.

Figure 4 is a sectional view through Figure 3 on line 4—4.

Figure 5 is a horizontal sectional view through Figure 3 on line 5—5.

Figure 6 is a horizontal sectional view through Figure 3 on line 6—6.

Figure 7 is a plan view of the blank from which the box shown in Figure 1 is made, portions of additional blanks being shown in dot an dash lines in connection therewith and illustrating how the blanks may be stamped from a minimum amount of paper.

Referring to the accompanying drawings by numerals 1 indicates the body of the box and 2 the cover which is hingedly connected at 3 to the body so as to swing to an open position as shown in Figure 1 or to a closed position as shown in Figure 3.

In the construction of the body and the cover any desired grade of paper, cardboard, leather or other material may be used, but, it is desired that the material used shall be sufficiently stiff and resilient to secure certain actions hereinafter described wherein there is friction between the respective sides 4 of the cover 2 and the respective side members 5 and 6 of the body 1. The resilient action of the material of the body 1 causes the sides 4 to be more or less pinched, and, consequently, to hold the cover 2 substantially in any position in which it may be left, as, for instance, a closed position or a fully open position.

The box shown in Figure 1 is made from a single blank indicated by the numeral 7 in Figure 7. This blank is provided with the side members 5 and 6 and with the sides 4 of the cover 2. The side members 5 are the two outside members and the side members 6 are the two inside members fitting flatwise against the side members 5 and between these two side members the sides 4 of cover 2 are inserted and are more or less pinched. This arrangement provides for a stronger box structure than the use of a single side member, and also, is unperforated so that articles in the body cannot pass therefrom except out of the top.

When constructing the body 1, the interior side members 6 are swung downwardly from the position shown in Figure 7 under and up against the outside members 5. To one of the interior side members 6 a back panel 8 is connected or rather is formed as an integral part, and the same is formed integral with the panel 9, which in turn is part of one of the sides 4. The side members 4 are bent along lines 10 and 11, and the panel 6 is bent along line 12 when the parts are being folded, while the tab 13 is folded against the cover top 14 as shown in Figure 3. The cover back consists of the panel 9, tab 15 and panel 16 folded along the line 17. These parts are all secured together by glue or some other adhesive after the same have

been folded as just described and as shown in Figures 3 to 6.

Extending from one of the interior side panels 6 opposite panel 8 is a back panel 18 which fits against the inner surface of the panel 8, while the panel 19 fits against the outer surface. The panel 20 is then placed over the panel 19 and the beveled end 21 of tab 15 is forced beneath the panel 20 and to a position substantially against the inclined edge 22 of panel 19. The parts are then secured together by adhesive as they are in the correct position. Also, during the folding action, the end tabs 23 and 24 are folded inwardly as shown in Figures 3, 5 and 6 and then the side tabs 25 and 26 are folded over against the end tabs 23 and 24, and the parts secured together by adhesive. The box is then in condition for use, the ends of the sides 4 being slidingly mounted between the respective interior side members 6 and the respective exterior side members 5. The cover may swing to an open position, as shown in Figure 1, or to a closed position as shown in full lines in Figure 3.

In folding the tab 13 to reinforce the top 14, the folded end 26 forms a thumb hold projecting slightly beyond the wall of the box by reason of the fact that the tab 13 is bent on line 27 which is beyond the edge of the sides 4, as illustrated in Figure 7. By reason of the construction just described, it will be seen that the top 14 is reinforced; the back 28 is reinforced; the bottom is reinforced, and the front wall 29 is double in thickness by the fact that the panels 30 and 31 are folded against each other along line 32.

It will be understood that when the side members 5 and 6 are folded they are folded on the respective lines 33, 34, 35 and 36. As illustrated in Figure 7, the blank is stamped from a single piece of paper and all parts of the box, therefore, formed from this single piece of paper with the cover 2 and body joined at the pivotal point 3. By this arrangement of the parts the respective tabs 13 extend into the cutaway portion of the next blank where a series are cut from a single strip of material, thus eliminating waste to a large extent. In cutting the various parts the same may be cut with merely slits, but, preferably, wedge-shaped openings are provided so that a suitable clearance will be presented and the parts will fit as specified.

I claim:—

1. A box of the character described comprising a single integral blank formed in two sections, the section forming the body presenting two substantially V-shaped members, said members when folded being parallel to each other and thus presenting a pair of side members for the body of the box, that part of the blank forming the cover being provided with a central panel with a pair of side sections forming sides to the cover when the blank is folded, said sides being positioned to slide between the respective side members of the body, the blank being also provided with a pair of panels, one acting as one ply of the back of the body and the other as one ply of the back of the cover, the material connecting said panels acting as a hinge for the cover when the box is in a folded position.

2. A folding box comprising a single blank, said box being provided with a body and a cover swingably connected with the body, said body having substantially double walls throughout and said cover having a double back wall and double top wall with single sides, said single sides slidingly fitting between certain of the walls of the body, said walls and the sides of the body guiding the cover as it swings to an open and closed position.

LEEDS K. FIELD.